The Marine Record.

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Maritime Law.

District Court, S. D., Alabama, March 9, 1891.

1. Salvage—When Allowed—Salvage is allowed as a reward for the benefit conferred on the person whose property is saved.

2. Same—Rate—There is no rule governing absolutely the rate of salvage, but, when the property is derelict, it seems at least one-third of the value of the property saved may be allowed.

3. Same—Passengers as Salvors—A passenger is entitled to salvage when his services are extraordinary

4. Same—When mariners left in charge of cargo, necessarily thrown overboard, desert their post and a passenger, by persuasion and rewards, induces them to return and successfully directs them in the rescue of the cargo with the ship's appliances, he is entitled to salvage, but not to the extent of the full value of the service rendered by all.

District Court, N. D. California. November 30, 1891.

Salvage—Compensation—Contract for Towage—The steamer W., bound to San Francisco with a cargo of 2,350 tons of coal, lost her propeller blades, became helpless and drifted near the mouth of the Columbia River. While in communication with a vessel which offered to tow her to an anchorage, from which tugs were easily accessible, and while in no immediate danger she hailed the steamer M., which was bound for San Francisco, and asked towage to that port. The M. was only about half her size, was not fitted for towing, and was also laden with coal. Her master, however, offered to leave the compensation to the decision of the W.'s owners after arrival in San Francisco, which offer was rejected, and after much haggling $15,000 was agreed upon. Neither vessel possessed a suitable tow line, and five small lines were used. This, in case of bad weather, would have been a source of danger, but the weather proved good and the vessels arrived in about five days. Held that, while the compensation was excessive, yet, in view of the fact that there was no compulsion, it was not so exorbitant as to justify the court in setting the contract aside.

District Court, E. D. Louisiana. December 23, 1891.

Shipping Regulations—Inspection—Passengers.—Where the wife and neighbors of a tug owner go upon the tug during a trial trip, merely to witness the test of her machinery, they are not passengers, within the meaning of the statute requiring passenger boats to be inspected and licensed; and the owner is not liable to the fine imposed by Rev. St. U. S. § 4499, for navigating any vessel contrary to the shipping regulations.

In Admiralty. Libel of information against C. M. Guess to recover a penalty for carrying passengers on a steam-tug not inspected or licensed to carry passengers. Libel dismissed.

BILLINGS, J. This case is submitted on the libel of information, and the answer and the affidavits and depositions taken under a commission. The suit is for a penalty of $500 for a violation of the Revised Statutes, in this: That the steam tug of the defendant, the Black Prince—

"Being an American vessel propelled by steam, and not being a public vessel of the United States, or of any other country, and not being a ferry boat or a boat propelled in whole or in part by steam for navigating canals, was engaged in navigating waters of the United States which are common highways of commerce, and open to general and competitive navigation, in that, while navigating as aforesaid, she did carry as passengers, not having then and there been inspected and licensed as a passenger steam boat, and not having a certificate from any board of local inspectors or steam vessels of approval of said vessel and her equipments, as proper for such service, contrary to the form of the statute."

It is to be seen that the *gravamen* of the charge in the information is that the defendant, as owner, had violated the statute, in that, while navigating his vessel, he had carried passengers upon a steam tug, without a certificate of inspection. The only point presented is whether the steam tug did carry passengers. The proofs adduced by the libelant's depositions, and by the answer of the defendant and his affidavits contain no conflict of evidence. They all show that the steam tug Black Prince, in the summer of 1890, had to be laid up for extensive repairs; that after they were made and completed, solely with a view "to test the machinery and ascertain if it worked satisfactorily," the defendant, the owner of the boat, raised steam and steamed down the Bayou Teche, from New Iberia to Jeanerette, and back, a distance of 10 miles each way; that the time occupied in going and returning was but four hours; that the persons described in the information as passengers were the wife and neighbors of the owner, who had no purpose in being on board, except to accompany the owner in his effort to see the working of the repaired machinery. There is no proof that there was any commercial purpose intended or accomplished, or any transportation as travelers, in this movement, either on the part of the owner or the guests who are charged in the information to be passengers.

The language of the libel conforms to that of the statute (Rev. St. § 4499,) and avers or charges that the Black Prince, being *i e*, "was navigated;" the language of the statute being, "if any vessel propelled in whole or in part by steam, be navigatod." Could it be said that this steam tug making this four-hour trip, landing nowhere, having no commercial communication with any point, except that of starting, and no purpose in the movement save to test the machinery in the boat, was being navigated so as to include her within the rules of navigation which are made by congress under the power to regulate the interstate and foreign commerce? It seems to me the whole movement of vessels and people on board in its object prevents these persons from being considered as passengers, within the meaning of the law. The case of Hartranft v. DuPont, 118 U. S. 223, 6, Sup. Ct. Rep 1118, is relied upon by the United States. But the Repauno in that case had been used by the plaintiff to transport himself, his superintendent, and sometimes nine workmen to and from their place of work. The transportation in that case was as truly within the sphere of commerce, and the navigating was as truly commercial navigation, as if the persons conveyed had been carried by hire by a common carrier. But in Transportation Line v. Cooper, 99 U. S. 78, the supreme court, without giving any reason, held that a canal boat laden with coal for transportation, having on board the master with his family, is not a barge carrying passengers, within the meaning of section 4492, Rev. St., which requires such a barge, while in tow of a steamer, to be provided with "fire buckets, axes, life-preservers and yawls." The case most nearly resembling this is The Joshua Leviness, 9 Ben. 339, in which it was held that a voyage from City Island to New York, made by a vessel just constructed, to enable her to be inspected, is not a violation of the navigation laws. In Gibbons v Ogden, 9 Wheat. 1, the court asserts the supreme authority of congress under the constitution to regulate interstate and foreign commerce, and that commerce includes navigation. The object of this statute, which (volume 3, p. 488) is entitled "an act regulating passenger ships and vessels," is to put in force the provision of the constitution authorizing congress to regulate commerce. The statute begins and ends with its object; and since this movement of the Black Prince was merely for the testing of her machinery, occupying four hours, without any commercial object, and the persons on board were the wife and neighbors of the owner, who, without landing, were carried to and fro, and with no object except as witnesses of the state of his vessel's machinery, the use of the vessel is not such navigation as brings it within the prohibitions and penalties of chapter 52, tit. 2, Rev. St., which are but a re-enactment of the statute above referred to. It is rather a use to see if she is ready for navigation under the statute. It may be said that this view may open the door to the violation of the statute. The answer to this is that the true and proper way to enforce a statute is not by straining its meaning, but, by a firm application of its terms, to promote the attainment of the object with which it was enacted, carefully scrutinizing each case, including and excluding in and from its operation as it is manifest congress must have intended. Let, therefore, the libel be dismissed.

RESOLUTIONS OF CONDOLENCE.

At a stated Convocation of Thatcher Chapter, No. 101, R. A. M., held February 26, 1892, the following resolutions were adopted:

Whereas, It has pleased the Supreme Ruler of the universe to call from our midst our beloved companion, Benjamin Chambers, who was born in Oswego, N. Y., in the year of our Lord 1843, who has always been an earnest supporter of our order, a respected citizen of this community, a kind and loving husband and father; therefore, be it

Resolved, That we deeply deplore his premature and sudden death, and condole with his wife, children and relatives, and companions and friends, in this, their great bereavement; and be it further

Resolved, That as a fitting tribute to his memory the charter of this chapter be draped in mourning for the period of thirty days; that these resolutions be spread upon the records of this Chapter, and that a copy under seal be engrossed and presented to the family of our deceased companion, also that a copy be sent to THE MARINE RECORD, that his companions and friends in Oswego may see and condole with us in this, our bereavement.

ROBERT WALLACE,
JOSEPH DOVILLE,
OMAR N. STEELE,
} Committ ɔ.

LAKE LEVELS.

A chart 28x37 inches, showing graphically the fluctuations of the water surface and the rainfall over the area of the Great Lakes from 1859 down to 1891, has been compiled by Mr. Charles Crosman, Milwaukee, Wis.

From this delineation it is observed that Lakes Huron and Michigan are five feet below the high water level of 1838, and very nearly four feet below the high water of 1859, 1876 and 1886.

The mean level of Lake Erie for December, 1891, was 1.68 feet below the mean level of the lake from 1859 to 1891 inclusive, and Lakes Huron and Michigan at that date were 2.17 feet below their mean level for the same period. The latter were also about 2-10 of a foot below the low water of January, 1873.

It is also noticeable and worthy of close consideration on finding that Lakes Michigan and Huron have receded uniformly each year since 1886.

Mr. Crosman states that, judging from the past, it would now seem that an upward turn must soon take place, but the evidences of such upward movement are not yet visible.

There is a deficiency in the precipitation at Milwaukee since 1886 aggregating 18,82-100 inches, and until that is made good and the rainfall secured the normal low rate seems to be inevitable.

As we have before observed the water level curves for the last twenty years show a tendency to irregularities which are probably due to changes in rainfall and watershed produced by the rapid destruction of forests, which, up to ten years ago, covered the basin of the upper lakes, but the curves fail to show, as has been widely claimed, any recurring cycle of high or low water.

In the notes explanatory of Mr. Crosman's chart it is stated that observations made by the United States survey have established the existence of small tides, which at Chicago, had an amplitude of one and a half inches for the neap tide and about three inches for the spring tide.

There is also another class of oscilliations called *seiches*, which have been already observed in the Swiss Lakes, and for which a solution in all respects satisfactory has not been offered. Whenever the lakes are sufficiently free from the disturbing action of wind to permit of observations being taken, a quite regular series of small waves, or pulsations, can be detected, which have an interval of about ten minutes from impulse to impulse. These pulsations seems to occur almost without cessation on Lake Superior, so that the lakes may be said to have tides in common with the ocean.

It is to be regretted that little or no *data* exists to verify the diurnal rise and fall and the surface movement of the waters in mid-lake, perhaps the east and west shores of Lake Michigan are the best recorded portions of the lakes in so far as the set and drift of currents trend and while it is clearly established that an annual erosion or wearing away of the lake shore on the west takes place, there is no definite information regarding the east shore or mid-lake characteristics of any of the lakes.

Assistant Engineer Z. G. Schermerhorn gives the water surface of the Great Lakes with the land draining into it as presenting a total area of 270,000 square miles and further adds, what may be a revelation to those who have associated the lakes with rivers and small inland areas of water, that the water surface of Lake Superior nearly equals the combined areas of New Hampshire, Vermont, Massachusetts and Connecticut; Lakes Michigan and Huron together nearly equal the area of the State of New York, Lake Erie the combined areas of New Jersey and Delaware, and Lake Ontario about three fourths the area of Maryland, carrying the comparison a little further it is found that the combined area of the lakes exceeds the area of England, Wales and Scotland.

From the same paper it is learned that the length of shore line of the lakes and their connecting rivers is about 5,400 miles, or about equal to the coast line from Maine to the isthmus of Panama measuring along the general contour of the coast line, so that the term Inland seas can not be said to be misapplied when speaking of these large bodies of fresh water.

IN the construction, care, and maintenance of United States aids to navigation there are employed: Steam tenders, 28; steam launches, 4; sailing tenders, 2; lightkeepers, 1,082; other employes, including crews of lightships and tenders, 1,994, according to the estimates for the fiscal year ended June 30, 1891.

(ORGANIZED 1880.)

CLEVELAND VESSEL OWNERS' ASSOCIATION.

(Membership 1892)

One hundred and sixty-three steamers, and One hundred and forty-four sail and barge, } Aggregating 298,127 tons.

Maintains shipping offices at Cleveland, Ashtabula Harbor, Fairport and Toledo. Regulates wages, protects crews and takes cognizance of all matters in the interest of the members and of the lake commerce generally.

OFFICERS:

H. M. HANNA, President.
M. A. BRADLEY, Vice-President.
GEORGE P. MCKAY, Secretary and Treasurer.
H. D. GOULDER, Counsel.

MANAGERS OR ADVISORY BOARD:

H. M. Hanna, R. K. Winslow, Thomas Wilson, P. G. Minch, M. A. Bradley, W. D. Reese, Geo. P. McKay, J. H. Palmer, B. L. Pennington, W. C. Richardson, J. W. Moore, Jas. Corrigan, H. G. Dalton, H. H. Brown.

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THE MARINE RECORD.—Official Paper.

NEWS AROUND THE LAKES.

CLEVELAND, O.

Mr. G. K. Jackson, vessel owner, Bay City, Mich., was in the city this week on vessel business.

W. J. Worden, of the firm of Miller & Worden fueling company, Port Huron, visited the city this week and made arrangements for traveling derricks, buckets, tramways, etc., to equip the dock. Mr. Worden is a capital business man, and will, no doubt, secure a large vessel patronage this season for his finely equipped fueling dock.

The employes of the Cleveland Ship Building Co. gave a ball on Monday night, which was well attended and proved a most enjoyable affair. It appears that they have an accident insurance fund, the officers of the association being: W. Watkins, president; H. H. Elstab, vice president; and G. Askew, secretary, and the proceeds of the ball were devoted to this estimable object. The committee of arrangements was composed of the following members: L. O. Hall, W. Harrison, R. Salter, J. Buckley, W. Sterling and C. Hall.

Capt. Carlton Graves has disposed of his eighth interest in the steamer Cormorant to Capt. J. S. Lawton, who will command her this season.

A well attended meeting of the Cleveland Vessel Owners' Association endorsed the action of the Committee on Senate Bill 1775.

VESSEL masters are again agitating the matter of Canadian officers on American lake vessels. The broad claim is repeated that Canadians secure citizenship papers in the United States for the purpose of sailing American vessels, but hold residence in Canada all the time.

Work will be commenced at once on the removal of the abutment in the river at Main street, a new structure will be erected and a span 90 feet in the clear will then be given for vessels proceeding up and down the river, this improvement will permit of the Detroit Line of steamers using the dock at the foot of Superior street adjacent to the fire boat station.

Captain Paul Serette, last season in the E. B. Hale, will this season sail the W. J. White propeller Quito. It is well known that Captain Paul is one of the most expert pilots, in the full sense of the word, that sails on the lakes and he bears the entire good will and fellowship of the marine fraternity.

The engines of the new lighthouse tender Amaranth recently launched from the yards of the Cleveland Ship Building Co., to the order of the United States Light-House Board, has been turned over and under a close inspection found to work most satisfactorily. The builders also furnished the boilers, engines, propeller wheel and all fittings and furnishings complete. The handsome little steamer as she now lies is a credit to the shipbuilding industry at large and having been built under strict Government supervision is one of the best hulls ever put afloat from this or any other port.

Local forecast officials who have proved themselves better forecasters than hindcasters have been invited to extend their fields of usefulness by taking more territory into their districts. The feasibility of dividing the State of Ohio into two sections for local forecast work has been considered, and Major Stockman, of Cleveland has been assigned to the northern half with Mr. Jenkins of Cincinnati for the southern half. Buffalo papers announce that Mr. Cuthbertson will also extend his domain so as to include the whole of northern New York in his forcasts.

Mr. Joseph R. Oldham returned from Buffalo on Wednesday morning, and in his office of superintendent of construction, states that the new Anchor Line steamer Codorus, building at the yards of the Union Dry Dock Co. to the order of the Anchor Line, is being well advanced, he speaks in no measured terms of the workmanship and skill displayed by Superintendent Gaskin in the construction. The Codorus is now more than half plated and is likely to be the first to be launched of the fleet of three now building at different yards, and named as we have previously noted the Schuylkill, Mahoning and Codorus, each 3,000 ton modern steel steamers

GEORGE H. Gardner, Fire Director, is of the opinion that the service could be greatly enhanced by the addition of another fire boat. There is not a fire station on the flats and a boat stationed at the foot of Seneca street, or even further up the river, could cover the ground in a manner superior to any other means which could possibly be used. One boat has proved so valuable that a second ought to be ordered forthwith; the march of mind in Buffalo has already pointed out this addition as being the surest and most economical mode of protection from fire.

BUFFALO, N. Y.

Special to the Marine Record.

Rogers, Brown & Co. have chartered for the entire season the steamer C. F. Curtis and consorts Holland, Fassett and Reed to carry their iron ore next season from Escanaba and Marquette to Tonawanda. The firm expects to bring down about 75,000 tons. It is calculated that the Curtis tow will be able to handle about 52,000 tons, and that some outside tonnage will also be engaged.

Major Brock, present Chief of the Bureau of Statistics, presents an interesting comparison of the receipts at the single port of Buffalo for the navigation season of 1891 as compared with the total export movement of the same articles from the entire United States during the same period. The season of navigation at Buffalo included exactly eight months, from April 12 to December 12, and during that period when the exports of flour and grain from the United States were quite unparalleled in the history of the country, the aggregate exports from all ports and customs districts are only equal to the receipts of the same commodities by water at Buffalo. If the movement of flour and grain at other ports were added to the Buffalo traffic, the receipts of breadstuffs at lake ports would exceed the total exports from the United States by more than 40,000,000 bushels.

Port Arthur people are sorry to hear that Capt. Foote is not to sail the Athabasca this year.

The Delaware, Lackawanna & Western Railroad's new route over the Ann Arbor road will have communication with the west shore of Lake Michigan by a boat which will carry twenty-four loaded cars across the lake, a distance of nearly eighty miles. The new boat will have a monster ice-crusher, in order to be able to run in winter as well as summer. But one will be built at first as an experiment. The change is considered advisable, as the getting of freight across the lake by the old system of transfer has proved expensive as well as inconvenient

W. J. Worden, of this port, has formed a partnership with J. E. Miller, of Port Huron, to operate a large fuel dock at the latter port. J. Bernatz's old dock has been purchased, as well as some land adjoining, and extensive improvements in discharging, loading and fueling equipments will be put in at once. The dock will be known as the Tunnel Coal Dock.

The steamer Samuel Marshall will tow the barges A. C. Maxwell and S. J. Tilden during the coming season. These barges formerly were behind the Ogemaw, which was lost last fall.

J. L. Crosthwaite has bought from Gertrude E. Lee the St. Louis and tow, consisting of the barges Champion and Potomac. The price paid was $50,000. Mr. Crosthwaite will be managing owner of this tow.

The stock of E. L. Parrish & Co. has been bought by Mr. George L. Parrish, of Wilkes Barre, Pa., who will assume the management of the firm, which will be known as Parrish & Co. The new firm opened for business March 2.

It is reported that the Pawnee and tow will this year take the place of the C. F. Curtis and tow in the timber trade between Menominee and Tonawanda. No reason is given for the change.

D. Whitney has sold to Detroit parties the barges India and Grace Whitney for $4,000 each, and the steamer S. C. Baldwin for $16,500.

Tutts, of Toledo, has bought the barge Dashing Wave for $2,500.

The annual meeting of the Inland Lloyds was held in this city at the Hotel Iroquois on Tuesday. It was decided to continue the Inland Lloyds Register under the management of Capt. Dan McLeod. S. V. Parsons, of Buffalo, and W. G. Keith, of Chicago, were designated as his assistants. The following officers were elected: President, David Vance, of Milwaukee; vice president, E. Harbeck, of Detroit; secretary and treasurer, H. S. Sill, of Buffalo; executive committee, chairman, George L. McCurdy, Chicago, W. J. Sandrock, Buffalo, A. L. Fitch and C. A. McDonald Chicago, and J. J. Clark, Detroit. The following general agents were present at the meeting: Eugene Harbeck, Detroit, representing Michigan Fire & Marine; A. H. McDowell, Detroit Fire & Marine; G. L. McCurdy, Chicago, Insurance Company of North America; Capt. A. Fitch, Chicago, of C. W. Elphicke & Co.; R. E. Rispin, Chicago, Sun of California; Capt. J. G. Orr, Buffalo, representing P. H. Fleming, of Chicago; L. L. Burton, Chicago, Cincinnati Underwriters; Paul Bullard, Buffalo, Manufacturers of Pittsburg; W. J. Sandrock, Buffalo, representing Smith, Davis & Co.; H. S. Sill, Buffalo, of Worthington & Sill, who also acted for D. Vance & Co., of Milwaukee. Crosby, McDonald & Co. and J. S. Gadschen, of Chicago, were unable to attend, but sent in notes promising to abide by the action of the meeting.

Captain Charles McCrea, has resigned his position as local inspectors of boilers and he will be succeeded by Captain Edward M. Marion formerly of the Union Steamboat Co.

Captain James Doyle, for many years master in the Hand & Johnson Line, of tugs has been appointed harbor-master, to succeed Ed. Mullen, the selection meets with the general approval of all vessel men.

Canal matters are uppermost this week and the Bill of Senator Endress now before the Legislature, asking for an appropriation of $20,000 for removing obstructions and dredging the canal between Commercial and Ferry streets, is generally endorsed. A committee of vesselmen consisting of Capt. M. M. Drake, Hon. James Ash, A. A. Swan, S. V. Parsons, H. Forbinder and P. V. Carroll, took action relative to the matter on Monday.

The steambarge O. O. Carpenter has been sold by Jenks to Reynolds & Co., of Port Huron, for $25,000.

The steamer D. W. Rust has been sold by the Schlesinger syndicate to Chicago parties for $37,500.

The barges H. F. Church and Montgomery are reported sold to Lord, of Oscoda, for $4,000 and $6,000 respectively.

The schooner F. B. Gardner has received large repairs during the winter in the shape of replanking. Capt. A. King will sail her this year.

Connelly Bros. have appointed Capt. H. M. Boyce as master of their schooner the John B. Merrill for the coming season.

The William Harrison, which is to run on the Niagara Falls route with the Shrewsbury, is no chicken of a boat. She was built in 1864 at Keyport, N. J. She is said, in spite of her age, 28 years, to be in very good condition.

S. D. Caldwell, who has so ably filled the president's office of the Lake Carriers' Association will probably retire at the expiration of this term. The annual meeting will be held on Thursday, and important measures will be acted upon in the interests of the lake marine generally.

TORONTO, ONT.

Special to The Marine Record.

The steambarge Niagara, is receiving new fore and main masts and the schooner Lady MacDonald is shipping a new mizen mast.

Captain J. C. Hume, and Engineer Wm. Kennedy, of the propeller Cuba and Captain T. Brown, of the Alma Munro, left on Monday for Montreal to fit out their steamers for next seasons work.

Captain McDougall, late of the Beatty Line, steamer United Empire is going to sail the Athabasca of the C. P. R. Line.

The Polson Iron Works Co., of Toronto and Owen Sound have all the frames up for the second cruiser for the Dominion Government. She is under construction at their yards at Owen Sound and is 125 feet in length overall, 19 feet 6 inches beam and 9 feet 6 inches draft. The engine is an inverted compound with cylinders 18 inches and 36 inches bore by 24 inches stroke. Boilers 10 feet 6 inches diameter, 11 feet in length with 2 Fox corrugated furnaces 36 inches diameter. Speed estimated 15 miles per hour. This cruiser is intended for fishing service in the Bay of Fundy. Another contract has been awarded them by the Dominion Government for cruiser No. 3 for service on Georgian Bay and upper lakes. Dimensions 125 feet long, 22 feet beam and 9 feet draft, with compound engines 18 inches and 38 inches bore by 22 inches stroke. Boiler 10 feet 9 inches by 11 feet with 2 Fox corrugated furnaces 36 inches diameter. Speed estimated 15 miles per hour. This vessel will be built of extra heavy steel throughout so as to be able to carry two or three quick firing guns. The Polson Co. have established a first-class record for themselves in steel shipbuilding and can point to their work with pride. The Manitoba the crack C. P. R. flyer was the first steel vessel built by them and has given the utmost satisfaction to the company for whom she was constructed. Then the Car Ferry Ontario and the steamer Seguin are later samples of their work. The Canadian Government have recognized the position attained by them and it is altogether likely that other Government orders will follow those already given. Indications point to a new steamboat line from Owen Sound to the "Soo" next season in opposition to the Great Northern Transit Co., of Collingwood. It is proposed to place the City of Midland and the Favorite on the "Soo" route with the City of London (formerly the Kathleen,) as an auxilliary steamer, taking the Parry Sound route. The Favorite ran on the "Soo" route last year and was such a decided success that it has been deemed advisable to increase the service.

MAGNET.

DETROIT, MICH.

Special to The Marine Record.

THE Anchor Line steamer Mahoning, building at the Wyandotte yards of the Detroit Dry Dock Co., is now all in frame and some of her bottom plating on.

LIEUTENANT Baker, U. S. N., detailed in charge of the World's Fair exhibits, visited the city Tuesday, and called upon the representatives of the Detroit Dry Dock Co., who intend making a thorough representative lake marine exhibit. He also called upon the Davis Boat & Oar Co., the Detroit Boat Works, and other extensive firms. Harvey C. Beeson intends making a display of marine literature, including books, charts, naval and mercantile marine historical works, and a general literary branch of the marine exhibits. The Lieutenant left for Cleveland on Tuesday night well pleased with his visit and reception, and more than ever eager to see that the lake marine end of his duties are well kept up.

CHICAGO, ILLS.

Special to The Marine Record.

Capt. H. H. Bennett, formerly of the steamer S. S. Wilhelm, will command the steamer Folsom, in winter quarters at this port.

The Vessel Owners' Towing Co.'s tugs will be supplied with the Beck steam steering gear, built by Pawling & Harnischfeger, of Milwaukee.

Oscar Clow, ship carpenter, is doing considerable work on the schooner J. H. Mead, comprising new decks, hatch coamings, stanchions, stringers, covering board and rail pawol posts and bitts, and other necessary repairs amounting to nearly $3,000.

The trial for conspiracy of the officers of the Chicago Seamen's Union is set for Monday next, March 7th.

The Seamen's Union is about ready to go into convention to determine what action may be taken to conserve their best interests during the coming season. It is learned that two dollars per day will be the wages asked for, as few of the members care to even think about working for less pay. The Lumber Shover's Union and the Longershoremen are also getting in shape for the opening work, and the latter organization will probably demand 30 cents an hour, and hope to obtain this without creating any friction among the agents of the large lines

MANITOWOC, WIS.

Special to The Marine Record.

Rahe Sons, the Manitowoc brewers, have purchased the cargo of coal brought here by the schooner Marion W. Page.

S. Burke, manager of the Northern Michigan Line, was here last week looking after the work doing on the steamer City of Charlevoix.

George P. Roth, the new chief engineer of the Goodrich Co.'s steamer Virginia, chief engineer John Durr of the steamer City of Racine, chief engineer Raymond Flint of the steamer Indiana, chief engineer Thomas Dorey of the steamer Muskegon, and chief engineer F. Neider of the steamer Chicago, are here fitting out the machinery on their respective boats.

Chief engineer John McCoffery, of the steamer City of Charlevoix, has resigned to take a position in Chicago.

Capt. Micklen is here from Detroit fitting out the steamer De Pere, recently purchased by Capt. S. B. Grummond, Detroit.

Capt. Alex. Cunnings, of the tug Bruce, is here from Ford River.

Capt. Ed. Carris is here, he will command the steamer Hunter of the Booth fleet the coming season.

Messrs. H. B. & G. B. Burger, shipbuilders, are very busy and have been doing lots of work all the winter. The steamer Hiram Dixon is in dock for lengthening 30 feet amidships, new steel straps with pointers 10 inches by ⅝, new stanchions all around, new cabin her full length and recalking all over. The tug Bruce is in dock for new top plank, stanchions, stringers and rail, new deck, fender strake, stern bearing and stern pipe, and recalking all over. The schooner Fearless is on the dock; she has received two strakes of outside plank and new stanchions, stringers, rail and plank shear. The firm is building a new tug 60 feet over all, 15 feet beam, 7 feet hold for Knapp & Gillen, of Racine, also a tug 70 feet over all, 14 feet beam, 6½ feet hold, for Capt. Shipman of Escanaba. The schooner John Kelderhouse was in dock and received new floor ceiling, new deck frames and decks, hatchways, plank shear, stanchions, stringers and rail and recalking. The steamer City of Charevoix was in dock and had her machinery and boiler taken out; she will go in again to receive a new engine and boiler, also extensive repairs to her cabin, and other necessary repairs and a new mast. The log scow City of Manitowoc, is receiving a thorough rebuild. The barge Kewenaw will go in dock for new keelsons and shelf pieces and recalking. The tug Peter Coates will go in dock for new ceiling, new house and necessary repairs, and will receive new machinery by the Montague Iron Works, and a new boiler by the Manitowoc Steam Boiler Works. The tug Monarch has received new fender strakes and general repairs. The tug Delta received new fender strakes and 3 new tow-posts. The steamer De Pere received new whale strakes all around and a general overhauling. The schooner South West has received some new planks on her top sides, and new plank-shear, stanchions and rail. The steamer Hunter received some alterations to her cabin and a new dining room. The schooner Marion W. Page will go in dock and receive repairs to damage done when ashore on Point Peninsula in December last. Burger & Burger have also commenced lengthening th eir dry dock. It will be lengthened 60 feet, and when completed will be 320 feet long.

Capt. John Williams, of the Marion W. Page, is spending the winter here. WILLIAMS.

KINGSTON, ONT

Special to The Marine Record.

Mr. W. A. Geddes, the well-known vessel owner of Toronto, was in town this week on business, and his many friends here were pleased to see him looking so well. Mr. Geddes says that the coming season will be a good one in his Line, and predicts a very large passenger business between Chicago and Montreal.

Capt. W. R. Taylor, formerly Inland Lloyds' Inspector, is very ill at his home here and as the old gentleman is over 81 years of age some fears are expressed as to his recovery. We sincerely hope he may be spared to visit his friends as in the past, his cheery face always bringing sunshine to the marine offices which he daily visited when in health.

The Donnelly Salvage & Wrecking Co.'s divers are engaged repairing the pipes of the Brockville Water Works and Capt. John Donnelly is superintending the work.

Messrs. Howard and Benny Folger have left for an extensive trip to Florida and then to San Francisco. We hope the gentlemen will have a pleasant time, and bespeak for these officials of the Thousand Island Steamboat Co. a welcome in marine circles such as they are always ready to grant strangers visiting this city.

At the annual meeting of the Richelieu & Ontario Navigation Co. held in Montreal on the 3rd, exception was taken to the report submitted by the directors, on the ground that as there was an apparent surplus of $300,000, a dividend should have been declared, and an advisory committee was appointed to take the matter into their consideration with full power to look carefully into the company's financial standing. Their report has just been rendered and it shows that the balance of the credit of profit and loss account for 1890 was $186,000, making with the balance for 1891 ($120,000) the sum of $306,000 surplus over all liabilites equal to a dividend of 22½ per cent on the whole capital. But this surplus includes $44,000 bad or doubtful debts and $130,000 for improvements and also $22,000 loans to the company. This, the report says, cannot be included as surplus, and when deducted leaves the actual surplus $110,000, and a dividend can only be declared on this amount. The committee state that with reference to the extra improvement account of $130,000, they are doubtful whether such a large appropriation was either necessary or expedient, and that in their opinion the improvements and outfitting should be limited to the strictest requirements consistent with efficiency. With reference to the building of the new steamer to cost $120,000, the committee are of opinion that before incurring such large expenditure, the matter should have been referred to the share-holders for their approval, as this expenditure is a serious additional tax upon the revenue of the company. The report has caused a good deal of comment among marine men in this section, but all agree that the advisory committee did their work well and fearless of criticism.

Last August, the town of Brockville invited a regiment of volunteers from Montreal to visit Brockville at the expense of the citizens. A committee, with Mayor Booth as chairman, was formed to receive the soldiers, and the steamer Island Queen was chartered to take them among the Islands for a sail. Before the accounts were all paid, the funds ran out and the owner of the Island Queen could not find any one who would pay her charter, so this week he sued the whole committee. Judge Webster gave judgment with costs against Mayor Booth and told the latter he had better look to the rest of the committee for their share.

E. Taylor has been appointed chief engineer of the propeller Celtic. Large repairs are being done on the steamer Maud consisting of new deck-frames and deck throughout. The steamer Pierrepont of the same Line is receiving new iron wheel boxes.

The steamer North King was floated off Davis' Dock this week and the Hero put on. The latter will receive large repairs to the hull and new guards both sides. Davis & Son have commenced rebuilding Mr. Newton's fine steam yacht with the object of increasing her speed. A new engine will also be put in by the same firm. MAGNET.

BAY CITY, MICH.

Special to The Marine Record.

The Vandalia Line of steamers, F. W. Wheeler, owner, consisting of the steamers Ossifrage, Lora, Minnie M. and Soo City, will be placed on the Milwaukee route this season. Dock property has been purchased at the latter port, and a brisk trade is certain to develop.

Capt. James Davidson has returned from his trip to Bermuda much improved in health and ready to meet another season's business with his usual energy and vim.

The large wooden steamship which is being constructed at Wheeler & Co.'s yard for McBrier and Mitchell, is to be called the Uganda. This is after a lake in Central Africa. Mr. McBrier is the owner of the steamer Nyanza, also built at Wheeler & Co.'s yard and named from the same source.

The Dry Dock Engine Works of Detroit are building two of the engines for the new steamships at Davidson's yard. Hodge's works are building the other. The first of these boats will be ready to receive her machinery in about two weeks, the planking being now well under way.

A Shore Line of steamers will operate this season between this port, Saginaw and Alpena. Maxwell and Lee will control the steamers Metropolis and R. G. Stewart, and the outlook is said to be most favorable.

The four lightships building at the yards of F. Wheeler & Co., to the order of the Light-house Board for coast service are getting well along in their construction, being all plated, When the ice clears No. 51 will be ready for launching, 52, 53 and 54 following in close order.

CLEVELAND VESSEL OWNERS' ASSOCIATION PROTEST AGAINST THE INNOVATIONS OF THE FRYE BILL.

The Bill embodying the recommendations of the United States delegates to the International Marine Conference introduced by Senator Frye has met with extreme opposition at all lake ports.

At a meeting of the Cleveland Vessel Owners' Association, held on Tuesday afternoon, tho following protest against the passage of Senate Bill No. 1755 was adopted. The document will be reproduced in pamphlet form and widely circulated:

Your committee have given the entire bill very careful study. So far as it relates to sea-going ships we do not express any definite action, not being sufficiently familiar with the practical details of the construction, equipment, handling, and business of vessels engaged in that service. We do not hesitate to say that there is manifested throughout the bill a like want of familiarity and experience on the part of its framers with the character of the lake commerce and its necessities, growing out of the quick dispatch in port and the frequency of the trips made, the short distances between ports of safety and repair, as well as with the practical details of the construction, equipment, handling, management and maneuvering of the vessels now in use upon the lakes. Such an experience of many years has convinced us that there is need of less rather than of more regulation of these matters. In the main the present system of inspection works well, but there are many details of it which could be dispensed with with safety to the public generally, and with convenience and profit to the owners and managers of our vessels. This is especially true of the immense fleet of steamers and barges used exclusively in the freighting business carrying bulk cargoes of grain, iron ore and coal. Cheap as the rates are for lake transportation the rate must depend to an appreciable extent on the freedom of these vessels from inconvenience, delays and expense, which bring with them no compensation in added safety. In this connection it is plain that the kind of inspection provided for steam boilers would require at least two days for each steamer to be taken out of the busy season, and which would require more than double the present force of inspectors to accomplish the work in such a district as our own.

Our first ground of protest then is, that the bill interferes with the rights of the owners, officers and crews of every class of vessels employed on the lakes in respects very much beyond the present requirements of the rules, and that in no particular is there need for such additional regulation or legislation. It adds unnecessarily and unjustly to the expense of operating these vessels, makes unreasonable and unnecessary requirements as to qualification in the men who gain their livelihood on these vessels, puts unnecessary expense upon the owners, involves the Government in an enormous annual expense, causes delay to our vessels, puts it in the hands of any disaffected person to bring about a breach of the law in some of the minute details of it, as, for instance, with reference to the draft marks, creates a system of espionage, re-establishes the moiety system of dividing fines with informers, a system which was for good reasons long ago abolished in other departments of the Government, and so far as our lake commerce is concerned, it is our opinion that the provisions of this bill do not add to the safety or convenience of anyone directly or indirectly connected with it.

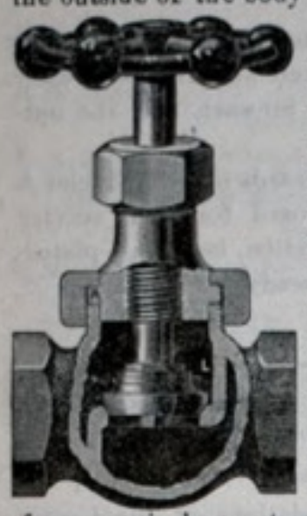
Your committee do not know and have been unable to find any reason for the inspection by the Government of freight tow barges and sailing vessels employed on the lakes, or for regulating their draft of water. We are deeply interested in the safe navigation of our vessels, and owners are in the main quite as competent to determine the proper qualifications in officers and engineers as would be the inspectors required by the law, besides being infinitely more interested than they in the securing of proper officers, engineers and men on board of the vessels. The officers and engineers on our vessels have grown up under the present system, and we venture the opinion that nowhere in the merchant marine of any country can there be a higher or better class of officers than those on our lake vessels. These men as a class are competent and efficient, have been and are doing their work well and satisfactorily to those having the deepest interest in it, and such requirements as the bill provides would be in the highest degree oppressive and unjust to them, and in a large measure it would be prohibitory to their following their profession.

There are even requirements in this bill that to fill certain positions on a lake steamer a man should have had training on a sea-going ship; for example, in the case of engineers, as shown in section 150. If that section means what it says, that a man to be chief engineer for machinery of 2,000 indicated horse power, or less, must have served at least three years or five years in a sea-going ship, according to the horse power of her engines, under such a law there are but few engineers who served last season on lake steamers who could qualify no matter how competent they might be. Nor is there

Continued on page 9.

LUNKENHEIMER'S REGRINDING GLOBE VALVE.

We present with this a sectional view of a valve which possesses some features of special merit. Instead of the bonnet being threaded direct to the body of the valve it is merely fitted into it plain, and rests upon a flange which fits upon the upper edge of the opening, as shown. The bonnet is then secured by a nut which fits over the flange, and is threaded to the outside of the body of the valve, as shown.



The result of this arrangement is that the valve can be re-ground at any time with the greatest facility, because all that is necessary is to loosen the nut, remove the bonnet, place a little sand and soap under the disc, and then replace the bonnet, leaving the nut loose, so that the bonnet is free to turn with the stem during the grinding. A piece of wire is passed through a hole provided for that purpose in the lower end of the stem and disk, so that the disk will turn with the stem during the grinding, which, of course, it does not necessarily do when the valve is in use. The bonnet, being in place when the grinding is done, effectually centers the stem and holds it in proper place, so that the grinding is done correctly. The valve can thus be readily ground while in position, and in many cases does away with the necessity for breaking connections. The disk is also, of course, easily replaced when required. The valves are made for the heaviest pressures and are in use on many locomotives, steamboats, etc., and on cruisers of the United States Navy, where the requirements are very severe. The valves are made by the Lunkenheimer Brass Manufacturing Co., Cincinnati, O.

THE GRAPHITE INDUSTRY.

The graphite industry is fittingly represented by the company whose founder first gave it birth.

The Joseph Dixon Crucible Co., Jersey City, N. J., was founded by Joseph Dixon in 1827, who, at that time, began the manufacture of black lead crucibles, and completely revolutionized the crucible business. All crucibles used at the present day for melting brass, steel, copper, gold, silver, nickle etc., are made of black lead (the common name for graphite), and by the Dixon process.

The Dixon Co. have not only been progressive, but they have been aggressive, and have pushed their goods into all parts of the civilized world. During the past year they have made extensive changes in their factories, and we take pleasure in showing by the accompanying illustration the main works and offices located in Jersey City, N. J. Their graphite mines are at Ticonderoga, N. Y., and their cedar mills are at Crystal River, Fla.

The nature of graphite, sometimes called plumbago, or black lead, is not generally understood; and, therefore, its great value in the mechanical arts has not been fully appreciated. Graphite is one of the forms of carbon. It is not affected by heat, cold, acids, alkalies or any known chemical solvent. It is also the best solid lubricant known to science, a remarkable conductor of heat and electricity. The peculiar qualities of graphite have given it a wide range of usefulness. It is used in the manufacture of lubricants for all purposes, crucibles, stove polish, lead pencils, foundry facings, electrotyping, graphite paint, etc.

The Dixon Co. are miners as well as importers of graphite, in all its forms, and use no graphite they do not mine or prepare. Their mines are located in Ticonderoga, N. Y, and they have every facility in the way of chemists and expensive machinery, etc., necessary for completely freeing the graphite from the silica, sulphur and other impurities which it contains when it comes from the mines.

The company's illustrated catalogue of graphite productions is an interesting pamphlet and well worth reading. It is sent free on application.

THE steamer Majestic has just made relative to distance the fastest ocean passage yet recorded, the length of the voyage being 2,865 miles, and the time 5 days 20 hours 22 minutes, the average speed throughout the passage being 20·41 knots per hour, the daily run being as follows: 470, 485, 504, 506, 514 and 386. On her seventeenth voyage the Majestic made the passage in 5 days 18 hours and 8 minutes, but in that case the distance run was only 2,775 miles, being 90 miles less than the distance of the voyage just made, which would be equivalent at the rate the steamer traveled to 4 hours and 28 minutes, and which would reduce the time of 5 days 20 hours and 22 minutes to 5 days 15 hours and 54 minutes for a distance of 2,775 miles, which is the fastest ever made.

THOMAS DREIN & SON, Wilmington, Del., still continue to furnish a large bulk of the patent metallic life boats, rafts and cork life preservers used in the U. S. Mercantile Marine. The following recent orders have just been received by the above named firm. 4 metallic life boats and life rafts, 1,200 cork life preservers and 4 cork ring buoys for the new excursion steamer now building by Murphy at Buffalo. 6 twenty-two feet metallic life boats for the new Cuban Line steamers now building. 2 metallic life boats for the Mexican R R Co. 2 twenty-two feet metallic life boats to the order of the Cleveland Ship Building Co. 4 metallic life boats and rafts, also cork life preservers and two wooden boats for the new Albany and Troy steamer.

SUBMARINE MINING.

The day is near at hand when iron ore mining will be carried on to a great extent under the bed of the lakes, already the several mining companies working in the immediate vicinity of Lakes Superior and Angeline have shafts sunk and opened under vast bodies of water, though not to the extent which the coal and tin mines of England are projected, as, if we are rightly informed, the coal mines on the Northwest Coast of England are now carried some three miles out under the Irish sea and work is still in progress.

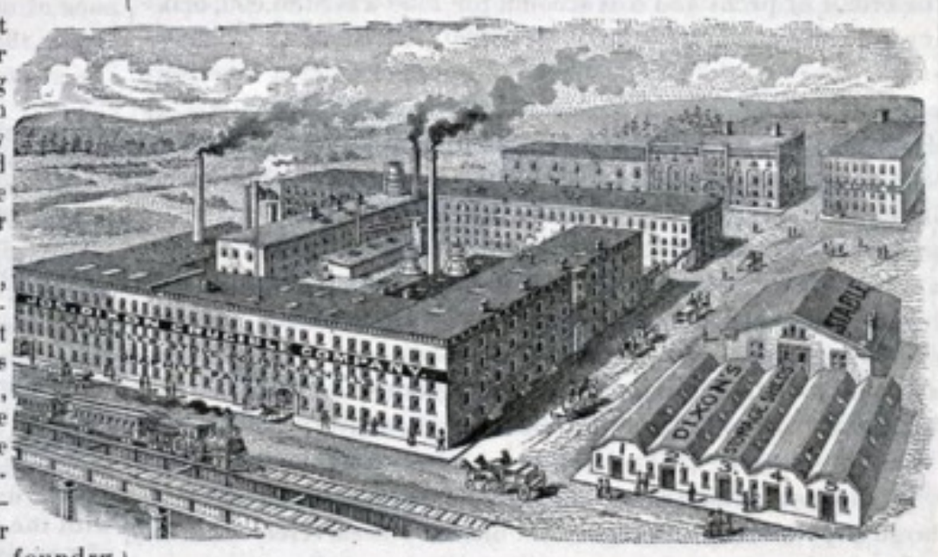
There is probably more danger of cutting into subterranean springs and in mining below the surface of the lakes than there would be on the sea coast, as one of the many supply veins tributary to the lakes is liable to be met with at any time and this element would not be so likely to obtain on the sea coast.

The Lake Superior and the Cleveland Iron Mining Co., as well as the Lake Angeline Co., are each working for an output of ore from sources which require the utmost precaution in the direction of good timbering, and while the financial results of this submarine mining may prove acceptable to stockholders there is no gainsaying the fact that more time, skill and expense will be required to secure an output from the developed mines in the future than there has been occasion for in the past.

One of the essential precautions will also be found in the adoption of pumping machinery of large capacity so that in the event of an inflow the leak might be kept well under control.

VESSEL MEN ATTENTION.

W. L. Fisk, Captain, Corps of Engineers, United States Engineer Office, Duluth, Minn., gives notice that an application has been made to the Secretary of War by the municipal authorities of the City of Duluth, Minn., for permission to bridge the canal at the entrance to the harbor at that place, and a public meeting to consider such arguments as may be advanced for and against granting the permission sought, will be held at the United States Engineer Office, 34 West Congress street, Detroit, Mich., beginning at 10 a. m· March 21, 1892. All persons interested are invited to be present, and an opportunity will be given to all who desire to be heard. It is requested that arguments be reduced to writing and presented in duplicate, either in person or by mail.



EARLY NAVIGATION ON THE ST. LAWRENCE.

Capt. S. G. Johnson, of Clayton N. Y., furnishes the Watertown Times the following interesting article on the early St. Lawrence system of navigation:

"A great deal of steamboat talk has been going the rounds of the press lately, and some of it is far from true. I have been on Lake Ontario and the St. Lawrence river sixty years. In 1840 I was on the steamer Telegraph as wheelsman, and since 1844 I have been in the vessel or steamboat business. I was on the propeller Western, running between Montreal and Toronto and west, in 1843, and in those days we ran all the rapids, for there was no canal but the Lachine. We came up through the Lachine, thence up by the way of the Ottawa, (then called Bytown) and thence to Kingston on the Rideau. I am stating these facts to explain what I mean.

Now the first large boat to run the rapids was not the Canada, or the America or the New York. It was a boat built at Niagara called the Ontario, which came out in 1839 or 1840 and proved to be a very fast boat for those days. On her trial trip she broke one of her shafts, thirty or forty miles below Toronto. It happened that the steamer Coburg came along and asked if the Ontario needed assistance, and the latter's captain replied: "No, I thank you." He then caused the boiler on that side of the boat to be filled with water, moved all the ballast over to that side, and started with one wheel. Running under these difficulties the Ontario beat the Coburg into Toronto. This went the rounds of the press so that parties from Montreal came up, bought her and took her to Montreal to run between Montreal and Quebec as a mail boat. She carried the mail in 1843 and was called the Lord Sidenham. She was the first steamer to run the rapids, and was piloted by Indians, 'Old Jock' and 'Old Pete,' being chief pilots. As no boat had run the Lachine rapids before that it was quite a risk for the owners, as well as for the Indians. The pilots were to have a thousand dollars each if she was landed safely at Montreal, which was done as follows: First a crib was made forty feet square with pine floats ten feet apart, with stakes ten feet long driven in each square, projecting downward. When all was ready some Indians were sent to the foot of the rapids and some were stationed in the trees on the side of the rapids. Several Indians towed the crib to the head of the rapids with their canoes and let go of it. Then every Indian watched the course it took as the crib sped on its way. With the current of the rapids the crib was turned over and it was found that none of the stakes were broken. That was a positive indication that there was water enough to run the Ontario through. The Indians then boarded the steamer. Each Indian piloted the Ontario as far as he had observed the crib's course. The only white man on board was the engineer, who also, I was told, received $1,000. This story I got from Old Jock, who used to pilot us and who ran us through the Lachine rapids nine times without a mishap.

As Mr. James Mooney takes exception to the statement in connection with Capt. Chapman, of Ogdensburg, I likewise take exception to what he says, though he is right as to the Canada and America were modeled in New York and built at Niagara by Louis Strickland, and the joiner work, cabins, etc., were done by A. B. Wright of New York City. They were built for the Great Western railroad, and ran between Hamilton and Cape Vencent. They were about 1,000 tons each, 275 feet keel, and fitted and furnished with all conveniences in the way of staterooms etc. The boats did not pay and were sold to some company to run on a river in the south. They were taken through the rapids in 1858 or 1859.

The New York was built at Clayton by John Oades, and never belonged to the same line that the Canada and America did, though she ran with them in 1856, and made better time than they could, and was acknowledged to be the fastest boat on the lake and river. She was 225 feet keel and of 885 tons. Her joiner work was done by A. B. Wright, of New York City, and she was finished complete at Clayton. Capt. Chapman came out in her with William Gardner, of Ogdensburg, as chief engineer in 1852. On her trial trip, with machinery and everything, she made eighteen miles per hour. She made a record from Cape Vincent via the north side of Carleton island to Rock Island light of sixty minutes. We have no boat now that can do that in seventy five minutes.

The New York belonged to the Ontario and St. Lawrence Steamboat Co., and hailed from the port of Ogdensburg. This company owned the steamer Northerner of 905 tons and Capt. Chapman was a large stockholder in them. These two boats, in 1859 and 1860, ran an express line between Lewiston, Toronto and Ogdensburg, making a daily line and stopping at Cape Vincent, Clayton, Alexandria Bay and Brockville.

In 1861 or 1862, they were sold to the United States government, and Capt. Chapman took them to Montreal. William Gardner was engineer of both boats. After the government bought them the Northerner's name was changed but the New York's was not. She was the flag of truce boat at Fortress Monroe during the war. One year ago she was still running at Cape Breton. The New York and the Northerner were run through Lachine rapids by Indians. I never knew but one white man to run the Lachine rapids, and his name was Robuck.

BRITISH SHIPBUILDING AND MANAGING.

According to H. E. Moss & Co's steam ship circular, the statistics of last year's shipbuilding, record a reduction in the gross tonnage registered of 70,000 tons less than 1890, and 125,000 tons less than in 1889; the total amount for the year being 927,000 tons steamers and 215,000 tons sailers, leaving a net increase in 1891 of British tonnage of 502,000 tons steamers and 30,000 tons sailers. A noticeable fact in the year's building is the increased size of cargo seeking vessels, commouly called tramps, vessels carrying 6,000 to 7,000 tons being numerous, and in more than one instance vessels are building of a dead weight capacity of 9,000 tons, and another point worth notice is the enormous number of steam trawlers, the output of the year nearly equaling the entire previous tonnage. Fewer large liners for America and the East were registered, but there are under construction two for the American trade, that in size, speed, and sumptuous appointments, will be superior to any existing steamers. A large amount of government work has been turned out, and the present year will very near see the end of all the contract work that has been given out. The former steamer tonnage built in 1891 is less than 10 per cent. of our native production, viz:—American 43,698 (principally on government account by Cramp); Germany about 45,000, Denmark, Holland, Norway, Sweden, etc., 20,000. Dividends during the year have been better than in 1890, modern economically worked vessels paying as a rule good dividends, and even compound boats have in many cases wiped out their debit balances; we see no immediate reason why this should not continue, as scarcely any steamers are lying up, and the commerce of the world absorbs all our available tonnage.

The *Newcastle Daily Chronicle* rightly says: "Managing ships is no longer gold digging," but it is a science requiring skilled knowledge, backed up by very careful management and the most rigid economy. During 1891 we have had no serious collapse amongst shipowners; this property is now generally held and managed by hard headed practical men, fully competent to protect the very large interests confided to them, and having the special knowledge necessary to ensure success. The proportion of vessels built of steel are as ¾th to ¼th iron, and wooden vessels are nowhere. For the next six months we believe the yards will be very well occupied, and some few have booked orders extending even into 1893, but at the present time fewer orders are being placed, owners watching the freight market most anxiously. If we may give a word of warning, it will be in reference to large sailers, which we consider have been over built, and another word of advice, will be to clear out compound and antiquated steamers, even at prices which are heart-breaking to the owners; our foreign friends are our best buyers for these, as heir practical immunity from legislation so freely bestow on us, in reference to the load line and life saving appliances, enable them to work their boats at a profit. Prices for building are not materially altered, steel sailers ranging from £9 to £10 10s. per ton, according to size, and ordinary cargo boats 3 to 4000 tons at about £7 per ton dead weight capacity.

Correspondence.

☞ We do not hold ourselves responsible in any way for the views or opinions expressed by our correspondents. It is our desire that all sides of any question affecting the interests or welfare of the lake marine should be fairly represented in THE MARINE RECORD.

AFTER THE TUG.

CLEVELAND, O., March 1, 1892.

To the Editor of The Marine Record.

Replying to Frank Henrich's pert'nent question in your last issue I make the courses and distances to be as follows: First answer—Course N. N. W. 36 miles, then N. E. by E. 384 miles; total distance, 420¾ miles. Second answer—N. by E. ¾ E. 59 miles, then N. E. by E. 344¼ miles; total distance, 403¼ miles. Third answer—Course N. E. ½ E. dist. 394 miles. So that by shaping a course to intercept tug A. 24¾ miles are saved.

S. W. G.

ANSWER TO TUG PROBLEM.

BUFFALO, March 1, 1892.

To the Editor of The Marine Record.

The "Query" contained in your issue of February 25th, given by Frank Henrich of Toledo, is a practical and well considered piece of work for lake navigators. In working out the courses and distance, I find, First—that by going to where vessel met tug A, tug B would steer N. N. W. 36 miles, then N. E. by E. 384¾ miles before he could hail tug A, a run of 420¾ miles. Second—by steering for the place where A is supposed to be, when B hails vessel. B would steer N. by E. ¾ E. 59¾ miles, then N. E. by E. 268¾ miles=328½ miles Third—B would steer N. E. ½ E. nearly 277¾ miles before he could catch up to A.

C. PETERSON.

A CHASE AFTER THE TUG.

CHICAGO, ILLS., March 1, 1892.

To the Editor of The Marine Record.

In reply to the question of your Toledo correspondent, given in THE MARINE RECORD of February 25th, I chased after that tug 420 miles on the first part of the problem, 323 on the second course and only 264½ miles on the last and most direct course. Allow me to commend such questions to the notice of all those men who have to shape courses for a living. Although I am a little rusty myself, it is plain to be seen that a saving of over 100 miles with the certainty of picking up an object on the course shaped is better than laying around loose not knowing whether you are going the right way or not, and similar cases are liable to occur on the lake at any time.

A SUBSCRIBER.

UNJUSTLY ACCUSED.

BUFFALO, March 1, 1892.

To the Editor of the Marine Record.

Permit me, in answer to the Buffalo correspondent of THE MARINE RECORD, ssue of the 25th ult. to have the privilege of making a correction, or at least of putting the exact circumstances before vesselmen.

The person who has taken action against me deliberately worked for this end with a view to having me placed behind the bars. Their is not a man in the marine business, knowing me, who thinks me guilty of the charges preferred. I can prove my innocence, but this is neither the time nor place. Would any sane person resting under the former charge think of committing himself further by performing what the papers charge me with doing? If this latter case is ever brought before a grand jury, I shall be acquitted without question.

SHIPING-MASTER W. H. BOYD.

SOLUTION OF WORKING PROBLEM.

MILWAUKEE, WIS., March 1, 1892.

To the Editor of The Marine Record.

Mr. Heinrich's problem is an example in plane trigonometry where two sides and enclosed angle are given.

Let us call the place where the vessel E. passed tug A. = C., the place where tug B. hailed the vessel=E., the place tug A. was in when B. hailed the vessel = D., nnd the place where B. will overtake A.=F.

We thus get two oblique angled triangles that have one angle=C., and one side C. E. equal. The angle C. is found by deducting the course of the vessel=S. 22° 30′ E., and the course of tug A. north 56° 15′ east from 180° and is thus found to be equal 101° 15′. The side E. C. is the distance run by the vessel in 4½ hours=36 miles, and the side C. D. is also known, being the distance run by tug A. in 4½ hours=40.5 miles. The triangle E. C. D. can now be dissolved and the angle C. E. D. found to be 42°. (Taking in even degrees and even miles) and the side E. D. 59.0 miles, which is the distance run by tug B. in the second instance. If dividing this with 11, the speed of B., we find the time required to run those 59 miles=5 hours 20 minutes. If now multiplying 9, the speed of A., with that time we find the distance that separates the two when they begin to head on the same course to be 48 miles. Now we know that B. gains two miles every hour on A. it will therefore take her 24 hours to catch up to A., causing her to run a distance of 264 miles. We can now dissolve the second triangle E. C. F., as we know the angle C., the side E. C., and also the side C. F.=40.5 + 264=304.5, and thus find the angle C. E. F.=72° and the side E. F.=317.

From what is known above we get the answers for the three questions as follows, the figures given being round figures, the art of the example not requiring a calculation to the minute:

1. NNW. 36 miles, and N. E. by E., 304.5 miles.
2. N. by E. ¾ E., 59 miles, and N. E. by E. 264 miles.
3. N. E. ½ E., 317 miles.

ADOLPH L. FRIETSCH.

THE AZIMUTH PROBLEM.

To the Editor of The Marine Record.

BUFFALO, February 29, 1892.

In answer to "Cannuck" in your valuable issue of February 18, I would say that "Sailor on Deck" is wrong in asserting that an Azimuth cannot be reckoned from north in N. Lat. and *vice versa*. It all depends on what formula a person may use and how the angle is taken out of the tables. If "Beginner" had taken Log Cos. to ½ Azimuth he would have found it to be 53° 1′, therefore, the true Azimuth N. 106° 2′ W.

By using the same formula as "Cannuck" I find true Azimuth to be S. 74° 4′ 10″ W. by taking the Log Sine out of the table as by "Norie," and N. 105° 55′ 50″ W. by taking L for Log Cos. as by "Guhnuiden."

"Cannuck" has a mistake of 1° in his remainder, which makes his first formula differ from his second. It has been shown by "Cannuck" and others that the problem can be solved in different ways.

Treating the same triangle by Polar Dist. Co, Lat. and Co.-Alt. as the following, it will give the same result:

Pol. Dist.	97°	9′	00″			
Co. Lat.	42	59	00	Log Cosec.	—10 =	0.1663522
Co. Alt.	85	7	50	" "	—10 =	0. 15703
Sum	225	15	50			
½ Sum	112	37	55	Log Sine		9.9651997
Pol. Dist.	97	9	00			
Rem'nd'r.	15	28	55	" "		9.4264051
					Sum	19.5595273
N. 106° W. True Azimuth					½ Sum	9.7797686

I prefer time Azimuth and Ainsley's and Bains' tables; they are quicker and more convenient, also less liable to mistake.

A LOOKER ON.

NEW LIGHT-SHIPS AND LIGHT-HOUSE TENDERS.

The Light-house Board is now building five new light-ships and four new light-house tenders. The light-ships Nos. 50, 51, 52, 53 and 54, building at Bay City, Mich., are intended, respectively, for Columbia River Bar, off the coast of Oregon, Cornfield Point, in Connecticut, on Long Island Sound, Fenwick Island Shoal, off the coast of Maryland, Frying-Pan Shoal, off the coast of North Carolina, and Martins Industry Shoal, off the coast of South Carolina. Each is to embody in herself all needed modern improvements, moving by her own steam, having the best fog signal and having illuminating apparatus specially adapted to the location she is to occupy. The light-house steam tenders Lilac, Columbine and Amaranth, all building in Cleveland, O., are to go, respectively, to the first light-house district, with headquarters at Portland, Me., the thirteenth light-house district, with headquarters at Portland, Ore., and the eleventh light-house district, with headquarters at Detroit, Mich. The plans for a new steam tender, the Maple, have just been made. She is intended for the fifth light-house district, with headquarters at Baltimore, Md., and she will soon be put under contract. Every effort has been made to embody in these vessels such improvements as will adapt each, in hull and machinery, for its own special work.

The board has built, during the past year, three small inexpensive light-vessels, for lake use only during the season of navigation. Each has sufficient steam power for getting to and from her station, and each has a steam fog signal and lights of sufficient range for her location. They are called light-ships Nos. 55, 56 and 57, and are stationed, respectively, on Simmons Reef, White Shoal and Grays Reef, in Lake Michigan. This experiment of attempting to use inexpensive light-ships instead of costly permanent light-houses is tried at the earnest request of the lake-vesselmen. Such small vessels would, however, be entirely inadequate for the boisterous weather and heavy sea of the Atlantic and Pacific Coasts of the United States.

THE annual report upon the improvement of rivers and harbors in eastern Michigan in charge of O. M. Poe, Colonel, Corps of Engineers, U. S. A., to the Chief of Engineers, Washington D. C., contains a complete digest of the work now being carried on and in contemplation throughout this important district. We note that the proposition to locate a dry dock at St. Mary's Falls Canal is still as objectionable as ever, notwithstanding the State of Michigan holds $65,000 in readiness to transfer to the United States for the purposes of construction. For a ship channel twenty feet in depth, and of a suitable width in the connecting links of the Great Lakes, the revised figures are $2,416,250.16 for a twenty foot channel, and $3,994,835.96 for a twenty-one foot channel, where a sea way is necessary to require the depth to be 21 feet. The wide interest which Colonel O. M. Poe has always given to the work under his control on the Great Lakes is evidenced in his valuable report, and fully bears out the high national standard which the Corps of Engineers, U. S. A., are credited with in their profession.

APPOINTMENT OF OFFICERS.

Warner & Co., Cleveland: Steamer Keystone—Capt. William Burns. Schooners, J. G. Masten—Capt. Henry Parker; H. A. Kent Capt. R. E. Byrns; Joseph Paige—Capt. W. R. Williams.

W. J. White has appointed Capt. Ira Mansfield to the steamer Brittanic; Capt. George Besant to the Quito, and Capt. Joe Todd to the flyer of the lakes, the steam yacht Say When.

A. D. Campbell, Michigan City, Ind.: Steamers, Walter Vail,—Capt. James Sandford, Engineer Dan McMillan; Huron City,—Capt. P. J. Canniff; schooner Baltic, Capt. A. D. Campbell.

Tonawanda Barge Line, Tonawanda, N. Y.: Steamers, F. R. Buehl—Capt. Woodgriff; Canisteo—Capt. W. J. Lynn, Engineer W. P. Boynton; A. Weston—Capt. M. Hyde; Alleghany—Capt. W. Sunderland.

Officers are appointed to the A. C. Tuxbury fleet of Tonawanda as follows: Steamer W. H. Sawyer,—Capt. R. E. Gain, Engineer Thomas Treleaven; schooners A. C. Tuxbury,—Captain George W. Manuel; C. E. Redfern,—Capt. Wyman Powers.

The Moore & Bartow fleet: Steamers, John W. Moore,—Capt. Richard Neville; Louisiana,—Capt. John Coulter; James Pickands,—Capt. P. Dowdell; Siberia,—Capt. W. W. Morris; Marquette,—Capt. Ed. Chilson; N. K. Fairbank,—Capt. J. H. Stoffer.

The Cleveland Iron Mining Co. have appointed the following officers: Pontiac,—Capt. J. B. Lowe, Engineer T. B. Kelley; Frontenac,—Capt. S. N. Murphy, Engineer P. W. Whelan; Kaliyuga,—Capt. John Lowe, Engineer James Patterson; schooner Fontana;— Capt. A. Peterson.

H. J. Webb & Co., Cleveland: Steamers, Roumania—Capt. R. J. Cowley, Engineer Edward W. Prince; J. H. Outhwaite—Capt. Louis Stone, Engineer Martin Burns. Schooners, John J. Barlum—Capt. George Brock; Genoa—Capt. Alex Porter; Camden—Capt. H. Cummings; Thomas P. Sheldon—Capt. P. H. Smith.

Capt. E. C. Benham has made the following appointments to his fleet: Henry C. Richards,—Capt. W. P. Benham; Queen City,—Capt. Gabriel Knight; H. B. Tuttle,—Capt. C. A. Benham; Zach Chandler,—Capt. Thomas Skinner; Ed S. Pease,—Capt. Thomas Sloan; Planet,—Capt. B. C. Gray; tug Peck,—Capt. Emil Detless.

The Cleveland Rolling Mill Co. have appointed to their fleet the following officers: New steel steamer, building by the Globe Iron Works Co.,—Capt. Thomas Wilford, Engineer James Clancey; J. H. Wade,—Capt. C. M. Swartwood, Engineer L. Malley; J. H. Devereux,—Capt. Simon Gilmore, Engineer Andrew N. McDonald; William Chisholm,—Capt. Richard Call, Engineer Silas H. Hunter.

The Corrigan fleet, Cleveland, O., will be officered as follows: Steamers, Australasia,—Capt. A. H. Gains; Bulgaria,—Capt. R. J. Lyon; Caledonia,—Capt. C. H. Cummings; Italia,—Capt. A. W. Reed; Aurora,—Capt. Robert McDowell. Schooners, Northwest,—Capt. John Ward; Tasmania,—Capt. Edward Lusk; George W. Adams,—Capt. Robert Donaldson; J. I. Case,—Capt. Thomas J. Robinson.

The officers appointed to the fleet managed by Harvey H. Brown & Co. of Cleveland, O., not given in our previous issues are: Steamers, Castalia,—Capt. C. C. Allen, Engineer James Hay; La Salle,—Capt. Henry W. Stone, Engineer Warren G. Tilton; Joliet,—Capt. P. L. Millen, Engineer Fred L. Harmon; Wawatam,—Capt. Ed. Mooney, Engineer Dempsey; Griffin,—Capt. O. W. Green, Engineer Henry Schoof; Monitor No. 1,—Capt. G. A. Minar; Monitor No. 2,—Capt. W. W. Brown.

The fleet owned by Capt. Peter Minch, Cleveland, will be officered as follows: Western Reserve—Capt. Albert Myers, Engineer William Seaman; Onoko—Capt. William Gerlach, Engineer John Smith; Philip Minch—Capt. William Young, Engineer E. C. Bacon; H. A. Tuttle—Capt. Cornelius Young; John Glidden—Capt. W. H. Johnson, Engineer J. P. Klasen; A. Everett—Capt. Henry Trinter. Schooners, Sophia Minch—Capt. Joseph Lampoh; George H. Warmington—Capt. Frederick Galton; F. A. Morse—Capt. Horace Fisher.

The fleet of the Kingston & Montreal Forwarding Co., Kingston, Ont., will be officered as follows: Barges, Condor,—Capt. D. Perron; Thrush,—Capt. L. Pregent; Hiawatha,—Capt. E. Leduc; Pet—Capt. D. Senical; Beauport—Capt. N. Gamlin; Cherokee—Capt. T. Lurin; Siren—Capt. T. Hebert; Iroquois—Capt. J. S. Leduc; Princess—Capt. M. Pigeon; Lark—Capt. Z. Pregent; Virginia—Capt. Joseph Perron; Dakota—Capt. M. Chatel; Huron—Capt. Jeff. Hebert; Bismarck—Capt. F. Mathew; Mona—Capt. M. Buck; Elm—Capt. W. Porter; Ox—Capt. H. Burke; Rapid—Capt. Samuel Reid.

Appointments for the Hawgood & Avery fleet are, Steamers, George F. Williams—Capt. E. B. McQueen, Engineer James Balfour; Servia—Capt. Thomas Ellis, Engineer Andrew Wilcox; Waldo A. Avery—Capt. George Robarge, Engineer David Burns; George W. Morley—Capt. Edward Ballentine, Engineer A. J. Helbing; Belle Cross—Capt. W. H. Buzzard, Engineer James Lee. Schooners, H. A. Hawgood—Capt. Fred Ahlstrom; Moravia—Capt. Louis Bang; F. D. Ewen—Capt. William D. Angell; Chicago Board of Trade—Capt. E. J. Buzzard; Clement—Capt. Fred Watson; Little Jake—Capt. Patrick Gordon; G. H. Wand, no appointment.

Continued on Ninth Page.

The Marine Record.

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☞ Subscribers and others are respectfully invited to use the columns of THE MARINE RECORD for the discussion of pertinent topics and all matters relating to the welfare of the Lake Marine. N. B.—We do not hold ourselves responsible in any way for the views expressed by our correspondents. Contributions must in every case be accompanied by the full name and address of the writer, and be at this office not later than Wednesday morning.

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CLEVELAND, O., MARCH 3, 1892.

A CANADIAN firm are now having built in New York a passenger steamer to ply between Montreal and Kingston. This is as it should be, in so far as United States shipbuilding is concerned. It will next be in order to build a few naval vessels for foreign order, and it matters not whether they go to the effete eastern dependencies or the more progressive of the South Americal Republics as long as their cost in good solid ducats is disseminated in the skilled labor market of the United States.

THE municipality of Duluth, Minn., has made application to the Secretary of War for permission to bridge the entrance to that harbor. This feature is derogatory to the best interests of Lake Shipping and cannot be too severely criticised. In another column of this issue attention is called to the innovation and the board appointed to hear and receive protests, etc, No artificial structures ought to be permitted to harrass shipping, especially when so much is being done to overcome natural obstacles.

THE Committee on Commerce have reported favorably on the bill to appropriate $275,000 for the construction of two revenue steamers for service on Lakes Michigan and Ontario to take the places of the Andy Johnson and Bibb. This bill was referred to the Secretary of the Treasury for his views thereon, and was returned to the committee fully endorsed. Lake shipments, as well as their brethren on the coast, will probably have an opportunity to bid on these specifications at an early date, though we cannot refrain from stating that the appropriation for the complete construction of the cutters ought to have been placed at a third higher figures than the amount now recommended.

THERE is not a universal spirit evinced at Washington just now in favor of the twenty foot channel. Since Congressman Whiting, of St. Clair, Mich., opposed the project before the River and Harbor Committee as being prejudicial to the interests of minor lake ports, inasmuch as it was argued that the smaller ports were liable to become side-tracked, as it were, when the deep water channel was completed. It would now appear that other interests are also working to head off the measure and the strictest inquiry should be set on foot to ascertain from what source or sources the opposition to the deep waterway channel is derived. The statement is made that McDougall, the inventor of the whaleback, is behind the fight against the twenty-foot improvement, because, as he argues, his style of vessels can do very well in such water as there is at present, and if the lakes are not deepened he will eventually be enabled to make the business of the large steel freighters unprofitable, and thus stop their building, though why this argument should be put forward is not very clear, as the twenty-foot channel is only to clear away the obstruction in the shallower portions of the connecting waterways and does not directly affect the port of loading or discharge. Vesselmen along the lakes have been informed by telegraph of the situation, and active work will be done to offset the damage wrought by Whiting and his sympathizers. It is believed that it can be done. Hon. V. A. Taylor and Mr. Thompson, Secretary of the Duluth Board of Trade, will appear before the River and Harbor Committe and endeavor to counteract the mischief which has been brought about to the detriment of the large tonnage of the lakes.

PAY THE LIGHTHOUSE KEEPERS.

The United States Lighthouse districts now number thirteen, three of which cover the entire coast line and outlying Islands on the Great Lakes, divided into the ninth, tenth and eleventh districts. There is required for the salaries of keepers of lights a sum of $632.732 the lake districts receiving $143,280.

These amounts are for the actual salaries, of keepers, rations at isolated stations where provisions are not obtainable, or only at great expense, for fuel for keepers, and fuel for the towers at stations in localities where the temperature is often such as to frost the lantern glass and prevent the light from being useful unless the tower be warmed by stoves. At a fog-signal station a keeper is required to have considerable knowledge of machinery and boilers, while the property in his care is expensive and easily injured. For the public interests with which he is charged, and the lives and property depending upon his faithful performance of duty, a keeper does not receive sufficient pecuniary recognition and it is a pleasure to note that the executive members of the Lighthouse Board recommend an increase of salary to be paid to this well disciplined and strictly reliable corps of Government employes.

Too often those in high places forget the trials, skill and labor which subordinates are called upon to exercise in completing the chain of unexcelled attention, and national reliability. When it is considered that all mariners in proximity to a lighthouse are watching as night shuts down, the moment of the appearance of the light, its workings through the hours of darkness, and even the time of its being extinguished at daybreak, and, that each observer does and should consider it a duty that he owes to himself and the fraternity, to report any irregularities which may have been noticed, it may then be conceived how strictly regular in habits and punctual in the line of duty the guardians of our coasts are and need to be. Hence, there is no more deserving class of servants in the employ of the Government and the compensation should be at least adequate if not liberal, the average salaries now ranging to only about $550. Irregularities in the visibility of lights occurring on a line of coast is soon heralded from Dan to Beersheba, yet, throughout the vast army of lighthouse employes it is seldom that even the slightest dereliction of duty is reported and the system now in force would soon bring to the surface and cause the suspension or dismissal of a careless or neglectful employe.

There are no doubt lights on certain coasts wherein the mariner places little or no dependence, such a state of affairs has never existed on the coasts of the United States, and this is due to the caliber of the men whose vigilance and general character is above reproach, as well as to the system carried out by the Lighthouse Board.

MARINE LEGISLATION.

Senator Frye will soon establish the reputation of a United States Plimsoll, the father of legislation and the guardian of the Mercantile Marine.

In addition to Senate Bill No. 1755, which has raised Cain throughout the ship owning, building and engineering plants of the country, we have now before us a copy of "Senate Bill No. 2355—To amend the laws relating to shipping commissioners, seamen and owners of vessels, and for other purposes." The features of the Bill do not at this time exercise any great influence over lake transportation, yet, as the lake marine plays the most important part in the mercantile tonnage of the country, and the inland seas are meeting with a large share of legislature attention at this time, it is but exercising an ordinary vigilance to look ahead in this matter and ascertain if the legislation is destined to affect lake commerce in the near future.

The Bill, covering twenty-four pages, is too lengthy to reproduce at this time, yet, the salient points briefly stated are as follows:

Desertions must be replaced,—seaworthiness in all respects enforced,—private vessels running short of provisions are to be mulcted in a sum not exceeding $500 nor less than $200,—every vessel in the domestic and foreign trade to be provided with a suitable room, in which a fire shall be kept in cold weather for the use of seamen,—penalty for desertion, being absent without leave, willful and continued disobedience of orders, assaulting the officers, or occasioning loss or damage to the vessel, official log-book entries, shipping and discharging seamen in the foreign and interstate trade, new scale of provisions, no lower forecastles to be built within twelve feet from the stem of a vessel, nor lockers, stores or hatchways, etc., to be in close proximity to the forecastle, nor shall any seamen be placed or ordered unnecessarily into a position of danger to life and limb or be assaulted, under a penalty. Section 27 "That in all vessels of the United States the sailors, on leaving port, shall be divided into two watches, each of which will be kept on deck four hours alternately, while such vessel is at sea. The watch below shall not be called on deck unless it is necessary for the safety of the vessel, and no seamen shall be required to do any unnecessary work on Sundays or legal holidays of the United States while at sea or in port."

In addition to the foregoing, a hand-book containing the laws of the Mercantile Marine is to be issued to all sailors by the Shipping Commissioner, and at ports where no such an officer is appointed, then, by the Collector of Customs. This book will give a personal description and other particulars of each seaman and be signed by each master under whom he may have served.—On and after January 1, 1893, no seaman not in possession of such hand book will be permitted to ship on an American vessel—Every person (apprentices excepted) serving in any capacity is to be considered a seaman, and the term "ship" or "vessel" shall include every description of vessel navigating on any sea or channel, lake or river.

The foregoing synopsis is sufficient to show to our readers the general scope of the Bill, and when it is considered that there are usually objectionable features in all matters of class legislation, and that the attention of the lake marine is now exercised over the clauses contained in Senate Bill No. 1755, and others are more than likely to obtain during the present session of Congress, it would appear that talented counsel at Washington ought to be empowered to advise, scrutinize and closely determine any measures which may seem, or are, inimical to the best interests of those men who are endeavor- to build up a mercantile marine. As a body, and at a distance, it is impossible for vesselmen to watch closely their best interests. Qualified representatives on the spot could do so, or at least in a more successful manner, than individual or collective action at long range.

The clauses contained in Senate Bill No. 1755, the protest against which we print in another column of this issue, is a matter of vital importance to lake shipping and is being vigorously taken care of, yet, even the prominent men interested may find that to obtain the desired revocation, constant and energetic action will be necessary, as the mere formulating of the wrongs involved will not accomplish the ends desired, without a clear push through the several phases to a pigeon-hole, and this may be done in the most direct manner by having earnest workers on the spot.

To further elucidate the phases arising during a session of Congress it is germane to our subject to point to the Bill recently introduced by Clark, of Alabama, requiring not only Shipping Commissioners at lake ports, but also that a fee of fifty cents for shipping and ten cents for discharging be exacted from each seaman signing or clearing from shipping articles. Mr. Clark was never placed under a request from the lakes to frame such a measure, nor are we aware of such a feature ever having been spoken of or treated previous to an article which appeared in THE MARINE RECORD on February 18 of our current volume, though, we candidly admit that the shipping and discharging fees were not embodied in our suggestions at that time, nor do we believe in the principle of anyone, and least of all, seamen, paying even a moiety for the privilege to work. And, furthermore, if it is essential to the nation's welfare that her mercantile marine is to be circled with legislative "dont's," then officials should be appointed and paid by the Federal Government to see that these "dont's" are carried out in their entirety.

From the present outlook it would appear that the infantile merchant marine is to undergo a surfeit of legislation during this Congress, and though it may be a nauseous dose, the men who have built up and now control the bulk of transportation are eminently qualified to protect their just rights and interests, imported Plimsollian views to the contrary notwithstanding.

GREAT LAKES SHIPBUILDING.

Major Brock, chief of the bureau of statistics of the United States Treasury Department, will soon send to Congress a large volume as his report. This includes a mass of interesting material concerning the Great Lakes and the commerce thereof. According to Major Brock's report forty-five vessels are now under contract in lake shipyards. All are to be ready for use early in the season of 1892. Of these forty-five vessels, thirty-two are of steel and forty are steamers. The total value of this fleet now building is $4,896,000. The average carrying capacity of all coarse freight steamers now building is 3,200 tons, while the average carrying capacity of the ten largest coarse freighters which were in process of building only one year ago was only 2,652 tons. The new vessels can load safely down to a draft of eighteen or nineteen feet, and many, as soon as the lake channels are improved to permit it, can safely carry cargoes of at least 1,000 tons each more than their capacity on the present available draft.

LOCAL forecast official, Major Stockholm, observer at the weather bureau station at Cleveland, has been invited by the Chief of the Weather Bureau to extend his forecasts, so as to include in his territory the whole of the Northern portion of this State. The Major's reliable forecasts attracted attention at headquarters.

INLAND LLOYDS.

THE meeting of the lake marine insurance companies held in Buffalo on Tuesday resulted in a continuance of the Inland Lloyds and a generally more compact uniformity in agreements that has heretofore existed, although another session must be held to formulate a tariff for hull rates, which will take place in Detroit March 22d.

WE are pleased to note the coming together of the varied interests, as no classification association could be found to carry on the work on the same lines as the Inland Lloyds and a suspension of the Register would but cause an indiscriminate confusion in writing risks.

THE best interests of the lake marine are subserved by the unanimous agreement to carry on the work and the revision of the Register will be made by Captain McLeod, the manager, with the assistance of S. V. Parsons, of Buffalo, and W. C. Keith, of Chicago. The names of the officers are given in another column of this issue, and it is noticeable that Chicago representatives are in the majority.

APPOINTMENT OF OFFICERS.

(*Continued from 7th. page.*)

L. S. Sullivan, Toledo, O, has appointed to the schooners C. C. Barnes—Capt John Cunningham; John Schuette—Capt. Frank Henrich.

Chas. Beyschlag, St. Clair, Mich., has appointed to the steamer P. J. Ralph—Capt. W. Leisk, Engineer John J. Burns; Schooner Alleghany—Capt. Thos Leisk.

M. P. Lester, Marine City, Mich., will mann his fleet as follows: Steamer Cherokee—Capt. John Hagan, Engineer F. A. Cadote; new steamer Iroquois building by Curtis & Brainard—Capt William Hagan, engineer not yet appointed. Steamer Miami—Capt. John A. Ward, Engineer C. G. Pierce; Schooners Chippewa—Capt. William Barrett. Dayton—Capt. A. Snellgrove.

Frank Clark, Detroit, Mich., has appointed Capt. Charles Bush and Chief Engineer William Bennett to the Maggie Duncan: and Capt. L. J. Johnson to the barge J. E. Potts.

W. E. Chapman, Sandusky, O., has appointed to the Steamer Chauncey Hurlbut—Capt. A. C. Reimers, Engineer George Marquart. Schooners D. K. Clint—Capt. C. H. Woodford. Masters for the S. L. Watson and A. J. Rogers have not yet been appointed.

P. P. Klein, Milwaukee, Wis., has appointed to the steamer City of Charlevoix—Capt. Ira Bishop, Engineer J. R. Mason; William Finneam—Capt. Lawrence, Engineer Frank Bowen.

G. W. Close, Berlin Heights. O., has appointed to the steamer C. W. Elphicke—Capt. Charles Z. Montague and Engineer Alex Bain.

RESCUE THE LIFE-SAVERS.

A somewhat startling proposal shoots athwart the Life Saving Service from the current issue of the *Rank and File*, an enlisted man's journal of wide circulation and influence, as follows:

"The great number of petitions sent into Congress in favor of improving the condition of the life-saving men shows that the people appreciate the services of this hitherto badly treated class of public servants, and that if proper efforts had been made, they could have have been put on the footing they merit.

The proper place for this service is under the Navy. The exposure and hardships to which its members are subjected makes their calling vastly more hazardous to life and health than service in the Army and Navy, and they should be placed on an equality with the soldier and sailor in the matter of pensions and other benefits of military service.

Under the existing condition of things, the man who becomes disabled in this service is cast aside without a thought, and left to sink or swim. This is heartless. The widows and orphans of these men who sacrifice their lives for others, are not given a thought by the Government in whose service they died. This is not the fault of the Government, which has never been sufficiently urged to do justice to this most worthy class of men. It is partly the fault of the men themselves, but principally of those who should have looked after their interests.

The officers connected with this service are seeking transfer to the Navy. The reasons for transferring the men are equally forcible.

Wake up, Mr. Life-Saver, your service should entitle you to pension or retirement in your old age, just as much as that of any other class of enlisted men.

You can never get it under the Treasury Department—the place for you is the Navy.

A WORLD'S FAIR VISITOR.

Lieut. A. C. Baker U. S. N., detailed to take charge of the Marine Exhibits at the Columbian Exposition, is on a visit to all lake ports, and is now at Cleveland en route for Boston.

The lieutenant has called upon all prominent firms in the marine industry, and many interesting and educational exhibits will be sent to Chicago in consequence.

It would seem that Lieutenant Baker's visit was most opportune, as he furnished direct information to intending exhibitors.

Lieut. Baker is a worthy scion of the U. S. Navy, affable, courteous, and better than all—a thorough seaman. Mr. John F. Pankhurst, general manager of the Globe Iron Works Co., is kindly doing the honors of the city and has placed every facility at the service of the Lieutenant who desires THE MARINE RECORD to express his hearty thanks for the courtesies extended to him at Detroit as well as in Cleveland, and Buffalo men will no doubt proffer an extension of their courtesy to our naval friend and well wisher.

THAT TOLEDO QUERY.

CLEVELAND, March 2, 1892.

To the Editor of The Marine Record.

As an answer to the working problem contained in your issue of the 25th ult. I would say that the actual distance A was from B at the moment of sighting the vessel was 59 miles on a course N. N. E. northerly. Should B steer along to this position and then follow the course of A he would steam 420¾ miles. A steers N. E. by E. for 232 miles, time 24 hours 42 minutes; then B will steer N. E. ¼ E. nearly 282 miles to intercept B, time 24 hours 42 minutes. J. C. THOMPSON.

Continued from page 5.

any body of men now serving in lower capacity whose promotion would have to be strictly according to this bill from which chief engineers could be recruited. Yet this class includes all of our lake steamers with only a few exceptions. The going into force of such a requirement would actually paralyze our lake business by throwing hundreds of steamers out of commission through denying employment on them to entirely competent and efficient men.

Another objection to the bill is that it puts it in the power and direction of an officer to be appointed under this bill to declare finally and irrevocably how many men shall be employed on a steamer, as well as the qualifications of those men; for as we read the bill, the inspector general has the ultimate disposal of that question. We do not believe that any other business of individuals and corporations, with millions of dollars invested in active legitimate business, in the care and safety of which they are more deeply interested than any others can be, are put under such dictatorial power in an officer of the Government. Our experience has taught us that a man who has learned a trade connected with engine building, or who may be able to construct and properly set up an entire engine, is not always a better engineer to operate the engine than one who has been brought up in the engine room of a steamer in the operation of that kind of machinery. On the other hand, some men who have learned and are masters of the trade of machinist or engine builder have proved unsuccessful and inefficient in charge of the operation of marine engines. The members of this committee could, if necessary, instance cases in which this has been true.

On account of the accessability of ports of repair on the lakes, where the tools and facilities for all kinds of repair work are available, our vessels are not provided with facilities for repairing any serious or considerable breakage in machinery. If a machinist were on board competent to rebuild an engine or repair a serious breakdown, it would involve a great loss of time and much additional expense to hold the vessel while he should repair it instead of quickly getting her to a place where repairs could be made with good facilities and with quick dispatch. It is unusual for vessels on the lakes, where customary courses are pursued from point to point, to be even out of sight of some passing craft which can render assistance in towing to a port of safety and repair, and your committee cannot now recall an instance where a vessel which has suffered a breakdown of her machinery has subsequently been lost or met with further disaster of serious character on that account. Such an instance we believe is unknown on the lakes. We call attention to the above matters as indicating the essential difference between the subjects of sea going navigation and the use of vessels on our lakes. The two subjects can only be dealt with, with propriety as distant subjects by separate legislation, if legislation is to reach any of the parts and details of their equipment for navigation.

Calling attention now to some specific objections to this bill, they are, that section 6 requires regulations for the inspection and equipment of lake and coastwise freight barges being towed and lake sailing vessels and the owners of such vessels. As a matter of experience and judgment upon experience, we say that this is wholly necessary, involving expense, annoyance and delays, to the owners of these craft, and a vast annual outlay by the government to no purpose.

That section 33 provides for the marking of the draft of our lake vessels. This is unnecessary. The provision is essentially uncertain, no standard being fixed. The law might be apparently broken in this regard through the malice of any one who would interfere with the marks, an incentive to causing annoyance and expense being furnished by the division of the fine, one-half to any informer.

Section 47, rule to find the pressure of steam allowed, only 75 per cent of the strength of the shell plates is allowed on account of rivetted seams. In the inspection district of Cleveland, not a boiler has given out in the rivetted seams when being tested. A reduction of 25 per cent in the strength of the plate is therefore not required.

The effect of sections 47 and 85 would be, that substantially all the boilers in use on the lakes which have been built in strict accordance with existing laws and regulations, and have been regularly inspected and have been performing well, would be cut down in their working pressure 20 to 30 per cent., a result which would so impair their usefulness as to practically require their abandonment and the substitution of new boilers which could under the proposed legislation be allowed the necessary working pressure for the type of engines in vogue and in substituting new boilers of the character required a largely increased weight would have to be carried. The expense and inconvenience of making the change is in itself sufficient objection when it is considered that the boilers which we have been and are using have proved sufficient and safe in operation.

Section 66 requires a valve between the feed-pump and the check-valve. This is defective, as it does not require a relief valve. Should the engine be started, when the valve is closed the pumps of the valve or pipe would burst, causing a breakdown which would cripple the boat.

Sections 37 to 41, inclusive, provides for the inspection of iron and steel plates to be used in the construction of marine boilers. That is not necessary. Practice has demonstrated the law and rules now in force for the inspection of plates and bracing to be all that is necessary.

Section 87 requires spring safety valve, that is, the springs are protected from escaping steam. No such valves are now in use on the lakes and they are not required. The valves now in use have answered the purposes, and it would involve great expense to change them. Section 87 also requires that the valve chambers must be bolted to the shell of the boiler. This would be impracticable on boilers having large domes, and objectionable in all cases, as there would be a tendency to blow water with the steam.

Sections 147 requires chief engineers to be at least thirty years of age and to have served at least three or five years at sea, according to size of engine. We do not regard the age of thirty years as material if he has reached the age of majority, nor can we say in what respect experience at sea should be required in a man who proposes to run an engine on the lakes and thoroughly knows how to do it.

Sections 148 to 167, inclusive, provide for the examination and classification of engineers. That is not necessary on the lakes, as the engineers that have been raised on the lakes and passed the present standard of examination are capable of performing all the duties that are required of them.

Section 98 provides for a fine of $100 again to be divided, one-half to the informer. Speaking in regard to this and the other sections of similar import, we desire to call the attention to the fact that the movement of our vessels is confined to a period of seven or eight months of the year. During the remainder of the year the vessels, representing an investment of many millions of dollars, lie idle. These and other causes have brought about a system for the rapid handling of cargoes. A temptation is held out to men to complain of all vessels for some breach of the details of this law, so timing their complaint that the vessel would be seized, when to take the ordinary measures of defense would result in the detention of the vessel perhaps over night, or from Saturday evening until Monday. A modern lake freight vessel, representing an investment of over $200,000, would frequently incur a loss much greater than $50 or $100 by delaying until she should be discharged upon bond. The danger would be that a system of petty black mail might be established. We do not believe that the Government ought to again bring into vogue the pernicious moiety system,

Section 179 provides for a system of lights and signals inconsistent with the requirements of lake navigation. For instance, it would be impracticable to carry a light on the stem in the cases of a majority of our lake steamers. In a heavy head-sea the sprays and solid seas would go over it to such an extent that it could not be kept lighted. In spring and fall it would become coated with ice to such an extent as to become useless in even a moderate sea.

Again, the only available place for the after light of the range would be above and near the pilot-house. The light shining on the forward deck and bulwarks would have the effect to blind the helmsman in the pilot house, and the officer on the bridge, as well as the lookout. We say this advisedly, because that the present masthead light often carried forty to fifty feet above the deck frequently becomes an annoyance in this regard.

The provision that side lights should never be carried forward of the foremast would frequently put those lights aft of the bridge and pilot house, where their effects and usefulness would be in some instances impaired. Besides, it would require some fixture along the side of the ship, which would have to be removed in port, and being movable would be liable to derangement. The present practice is to carry the sidelights at the bridge where the vessel reaches her full beam and they are entirely clear of anything forward of that, and independent of the foremast, which varies considerably in different vessels according to the taste of the owner and the arrangement of the deck plan of the vessel.

Relating to fog signals, we are of the opinion that any such change as recommended in article VII., page 87, would be to complicate, and hence confusing, thus enhancing the danger rather than tending towards greater safety. Inconvenience and danger arise now from the fact that the single blast has a double office to perform as a fog signal and a passing signal, and we emphatically object to legislation which would give the two blast signals also such a double office, and any attempt at giving a signification to a series of whistle blasts according to their length must lead evidently to uncertainty because of the different notions which men may have as to what constitutes a long or a short signal and the difficulty of blowing them with nice discrimination in moments of excitement and peril.

We also regard the provision as to life and yawl boats for freight steamers unreasonable as to the number of boats and places to be carried. The present provisions of the law are ample in that respect, and no change is necessary.

Your committee finds other objections to the bill as printed, but the same being of the character of those already indicated, we do not specify them particularly, and we recommend that The Cleveland Vessel Owners' Association protest and use all its influence against the passage of the bill under consideration.

FLOTSAM JETSAM AND LAGAN.

Capt. M. J. Galvin of Buffalo has bought a three-fourths interest in the steamer J. H. Sarigley, formerly owned by Barber, Scully & Co. of Dunkirk. The steamer, now wintering in Buffalo and lately damaged by fire, is undergoing extensive repairs.

The ice on the lake off Dunkirk is broken up. An early opening of navigation is much more likely than it was 10 days ago.

The census gives the following vessel tonnage to the three leading lake ports: Cleveland, 163,000 tons; Buffalo, 128,000 tons; Chicago, 71,000. The commerce of these cities is given as follows: Chicago, 7,984,000; Buffalo, 6,730,000 tons; Cleveland, 3,621,000 tons.

William Lacroix is building a sailing scow at Algonac for the river trade. Her length is 60 feet on deck, 16 feet beam and 3½ feet depth. The scow will be called the Leader and will take the place of the old scow Leader which was disabled by the propeller Dean Richmond last fall.

Capt. A. C. Chapman, last season on the Menominee Line steamer Roman, resigned his position in the Line and although he is one of the most qualified and successful masters on the lakes, gives up sailing for this season and has been appointed wrecking master and agent of the American Steel Barge Co. at Sault Ste. Marie. He will have charge of a lighter, with steam pumps, etc., which will be stationed there for the purpose of assisting and lightering any whalebacks that may ground in the Sault river. This will be done with as complete a wrecking outfit as there is on the lakes, including six powerful centrifugal pumps, hoisting engines, steel wire cables, submarine diving outfit and all accessories.

PROPOSALS.

OFFICE OF UNITED STATES LIGHTHOUSE ENGINEER, Ninth and Eleventh Districts, Detroit, Mich., February 26, 1892. Sealed proposals will be received at this office until 12 o'clock M., on Thursday, the 17th day of March, 1892, for furnishing the material and labor necessary to completely construct and deliver at Light-House Depot, Detroit, Mich., the metal work required for nine circular iron oil houses. Plans, specifications, forms of proposals and other information may be obtained on application to this office. The right is reserved to reject any or all bids and waive any defects. William Ludlow, Light-House Engineer. 1-t

OFFICE OF LIGHTHOUSE INSPECTOR, 11TH DISTRICT, at Detroit, Mich., February 29th, 1892. Proposals will be received at this office until 12 o'clock M., on Tuesday the 15th day of March, 1892, for maintaining all the buoys now marking the entrance into Saginaw River, Michigan, and such others as may be authorized, for one year, from the first day of July next. Forms of proposals and printed specifications, showing what is required, can be had by applying to this office. The right is reserved to reject any or all bids, and to waive any defects. The contracts will not be approved until the Sundry Civil Bill making appropriations for the next fiscal year has become a law. O. F. Heyerman, Commander, U. S. N.; Lighthouse Inspector.

OFFICE OF LIGHTHOUSE INSPECTOR, 11TH DISTRICT, at Detroit, Mich., February 29th, 1892. Proposals will be received at this office until 12 o'clock M., on Tuesday the 15th day of March, 1292, for furnishing and delivering provisions for vessels and light stations in this district, for the fiscal year ending June 30th, 1893. Forms of proposals and printed instructions giving full particulars as to the articles required, and the terms of delivery and payment, can be obtained at this office. The right is reserved to reject the whole or part of any or all bids, and to waive any defects. The United States reserves the right to reduce the quantities specified, or to require the delivery at any time during the fiscal year of a greater quantity (not to exceed one-third) of any item or article mentioned in the specifications, and a clause to this effect will be inserted in the contract. Contracts will not be approved until the Sundry Civil Bill making appropriations for the next fiscal year has become a law. O. F. Heyerman, Commander, U. S. N., Lighthouse Inspector.

OFFICE OF LIGHTHOUSE, INSPECTOR, 11TH district, at Detroit, Mich., February 29th, 1892. Proposals will be received at this office until 12 o'clock M., on Tuesday, the 15th day of March, 1892, for furnishing and delivering fuel for vessels and stations in this district, for the fiscal year ending June 30, 1893. Forms of proposals and printed specifications, giving full particulars as to the kinds of fuel required, the quantity and quality, and the terms of delivery and payment, can be obtained at this office. The right is reserved to reject the whole or part of any or all bids and to waive any defects. The United States also reserves the right to reduce the quantities specified, or to require the delivery at any time during the fiscal year of a greater quantity (not to exceed one-third) of any item or article mentioned in the specifications and a clause to this effect will be inserted in the contract. Contracts will not be approved until the Sundry Civil Bill making appropriations for the next fiscal year has become a law. O. F. Heyerman, Commander, U. S. N., Lighthouse Inspector.

Marine Engine, cylinder 14 by 16 bored out and thoroughly repaired, ready to put in boat, for sale only on account of a change of plans; a new 6 foot Trout wheel, shaft 10 feet long, 4 inches diameter, main bearing, stern bearing, feed pump, complete $400. One Lidgerwood double hoister and boiler, complete, cost $1,000; price $500. Enquire, The H. M. Loud & Sons, Lumber Co., Au Sable, Mich. 5-21tf

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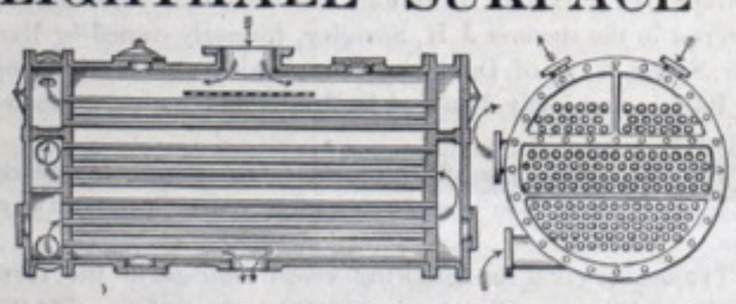

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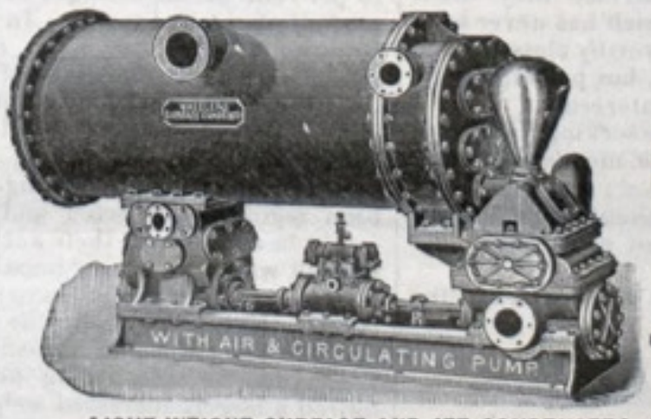

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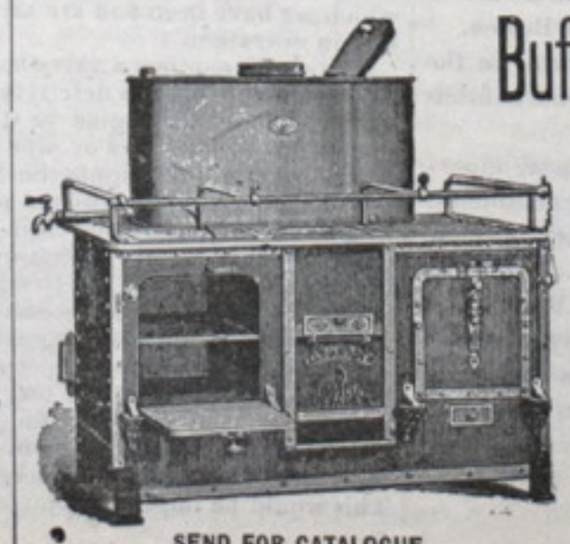

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